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USACE Projects Impact Iraq's Environment

By Mr. Ronald A. Reeves and Mr. Scott D. Harris

The Army's focus on environmental sustainability is evident in projects in the Iraq theater of operations where the United States Army Corps of Engineers (USACE) Gulf Region District (GRD) manages construction.¹ Solar-powered street lights installed in Fallujah, for example, use the sun's renewable energy, balancing the needs of the environment and communities by providing power, conserving natural resources for other uses, and improving air quality through reduced air emissions.

Greater Environmental Ethic

Environmental conservation is not something that was practiced during Saddam Hussein's regime, but in visits by USACE team members to more than 200 project sites throughout Baghdad and Al-Anbar provinces, many Iraqis indicated that they were in survival mode—worried about feeding their families, having a roof over their heads—and found it difficult to get excited about other issues. However, as the Iraqi security situation has improved, citizens are able to focus on other needs and may embrace a greater environmental ethic as time goes on.

Since no one wants to live in an environment strewn with trash—or where children walk in open sewer drainage ditches, or where the purity of water or air is questioned—projects that are built in partnership with the government of Iraq, the U.S. government, and GRD are providing essential services that many Americans take for granted, such as clean water and sewage removal.

Of significance is the Sadr City Water Treatment Plant, which provides 200,000 Sadr City residents with clean, potable water—and employs numerous local Iraqis for facility operations, maintenance, and administration. The three-year, \$65 million endeavor supplies water to 27 sectors in Sadr City at a rate of 4,000 cubic meters per hour. Also completed is the restoration of the Khark Water Treatment Plant north of Taji, which contributes 43 percent of the potable water to Baghdad. Three neighborhoods, or *mahallas*, in south Baghdad received nearly 41 miles of water mains, ranging from 4- to 12-inch pipe. The dearth of potable water supply networks in Baghdad and elsewhere has been addressed by projects that have helped double the number of people on potable water systems throughout Iraq.



Fallujah Wastewater Treatment Plant under construction by USACE Gulf Region District

GRD photo by Kendal Smith

USACE sewer projects that serve citizens include the \$30 million project in Kamaliya, in which approximately 36 miles of sewer pipe and 10 pump stations were installed. In partnership with the government of Iraq, GRD is completing other sewer improvement projects throughout the central region in Doura, Adhamiyah, Mansour, New Ubaydi, and Fallujah.

Major Reconciliation Project

Begun in 2004 and approximately 90 percent complete, the Fallujah Wastewater Treatment Plant's revised design will treat 40,000 cubic meters of water per day, projected to serve 200,000 residents. U.S. State Department officials call it a major reconciliation project that will discharge disinfected water into the Euphrates River, where residents downstream take their drinking water. The design allows for future expansion as the government of Iraq grows its infrastructure. This project of vast scope has involved retrofitting—in extremely close quarters—Baghdad and Fallujah with sewer systems.

One element often overlooked is waste management; landfills are the USACE contribution to that, both on forward operating bases and in the city of Baghdad. Northeast of Baghdad in Rusafa, GRD will build a sanitary landfill—not like those in the temperate regions of the United States, but designed for Iraq's arid climate. GRD has also built incinerators to more effectively handle solid, medical, biological, and routine waste.

Joint Environmental Effort

USACE and the government of Iraq are committed to improving conditions throughout Iraq. GRD, headquartered in Baghdad, is a joint effort comprising civilians, Soldiers, Sailors, Airmen, and contractors and provides high-quality and sustainable engineering in support of civil and military construction in Iraq. GRD and its Iraqi partners are building a strong foundation for Iraq's future.

In everything USACE has done—whether a road project, school project, or police station—there has been an environmental component. Whenever their established forward operating bases, post camps, and stations are closed out, USACE makes it a point to leave them as clean as—or cleaner than—when they arrived. As Iraq continues to grow as a secure, stable, and self-governing nation, GRD has finished hundreds of projects in the public works and water sector. Since 2004, USACE has completed 896 water and sewer projects throughout Iraq and 44 others are ongoing. These projects directly benefit more than 5 million people.



Photo courtesy Office of the Secretary of Public Affairs

Street in Kamaliya before sewer system construction began

Mr. Reeves served as a public affairs specialist for the USACE Gulf Region District, based near Baghdad, Iraq, until October 2009, when he redeployed to pursue other opportunities in his home state of Texas. He served in the United States Army Reserve as a journalist and broadcaster from 2003-2008 before joining the USACE reconstruction effort in Iraq last year.

Mr. Harris is Public Affairs Chief for the USACE Gulf Region District, based near Baghdad, Iraq. He served in the United States Submarine Force for ten years before becoming a public affairs specialist in 1995. He holds a master's in communications from the University of Oklahoma.

Endnote

¹The Gulf Region Division (GRD) inactivated in September 2009 and no longer exists. Presently the Gulf Region District (GRD) and Gulf Region South (GRS) both report to Transatlantic Division, based in Winchester, Virginia. In April 2010, GRS will inactivate, leaving Gulf Region District as the only USACE organization in-theater.